

FIG. 1

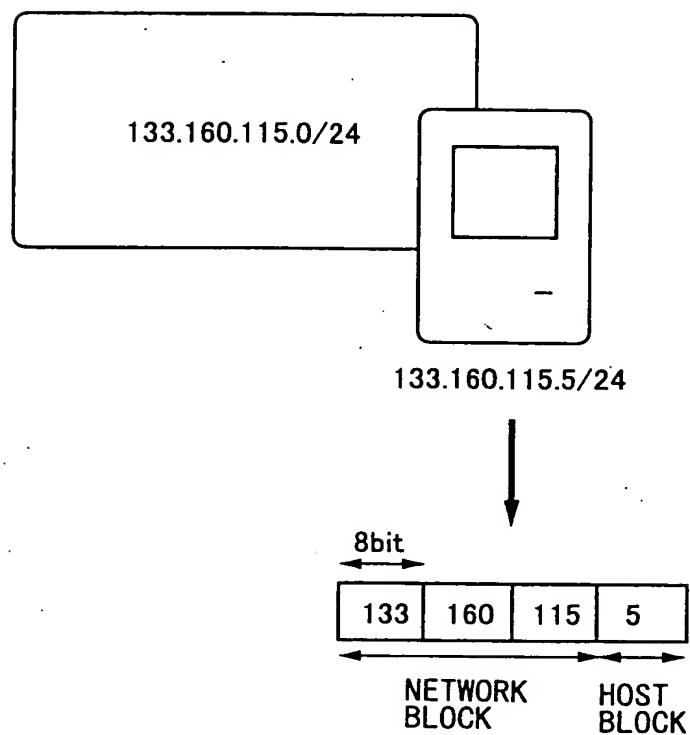
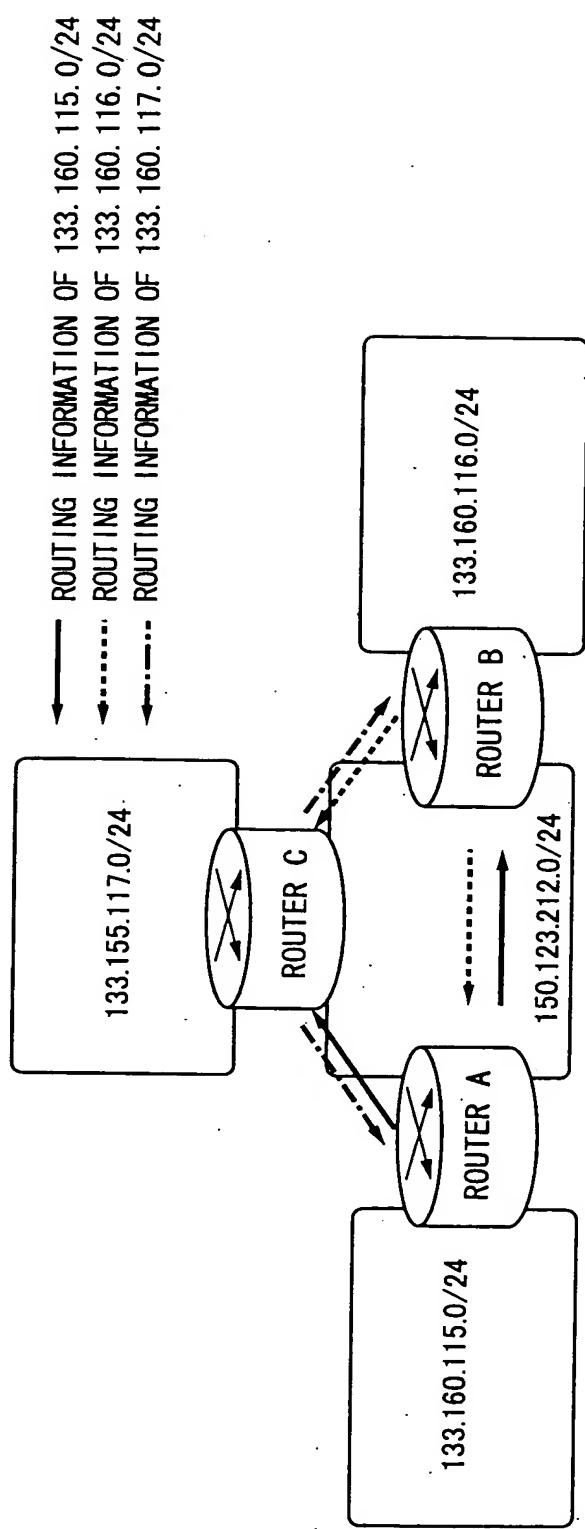


FIG. 2



**FIG.3**

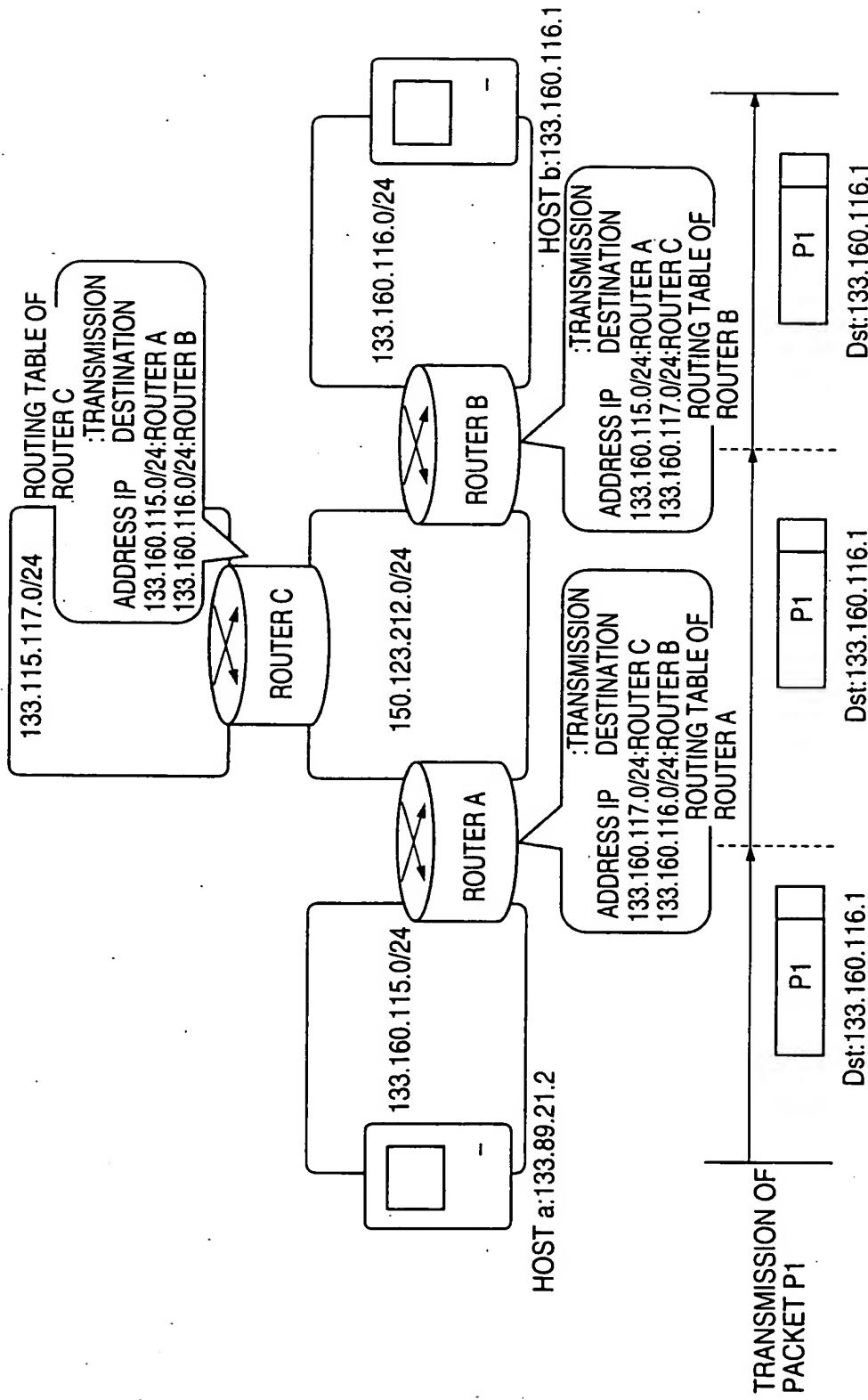
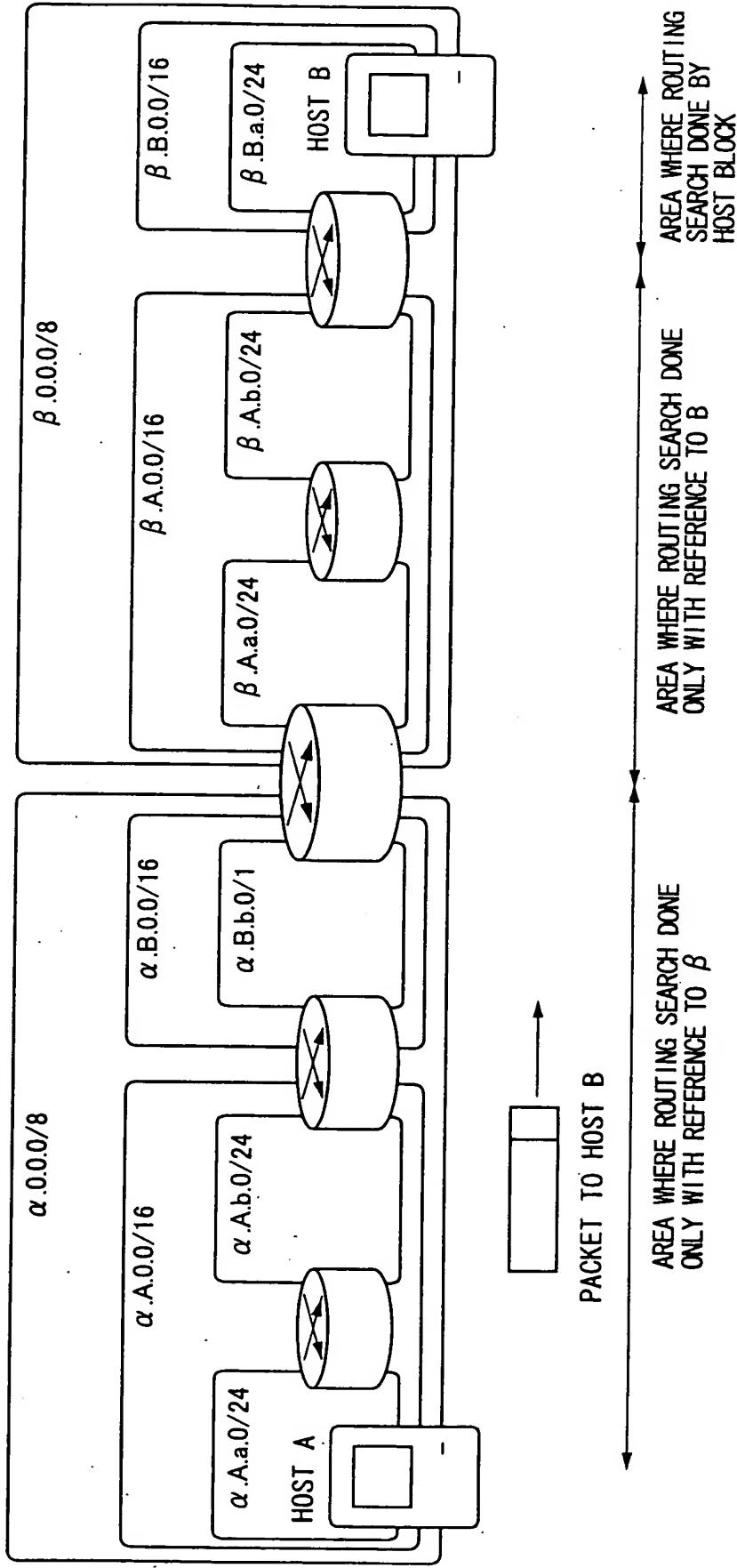
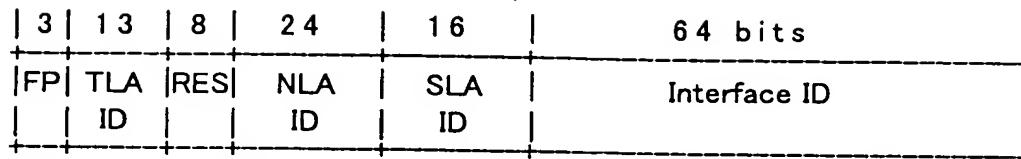


FIG. 4

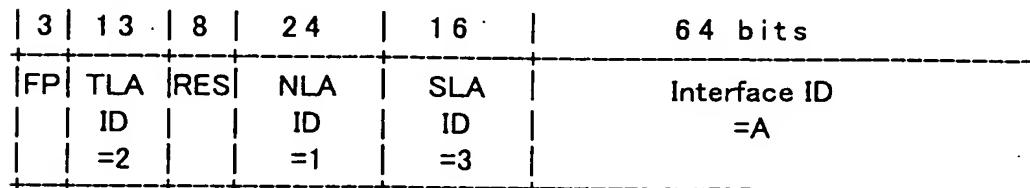
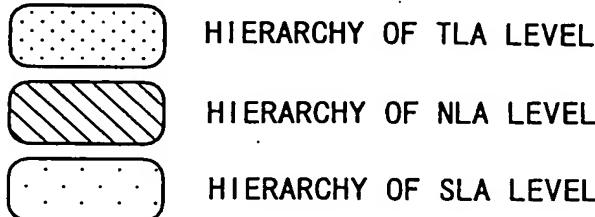
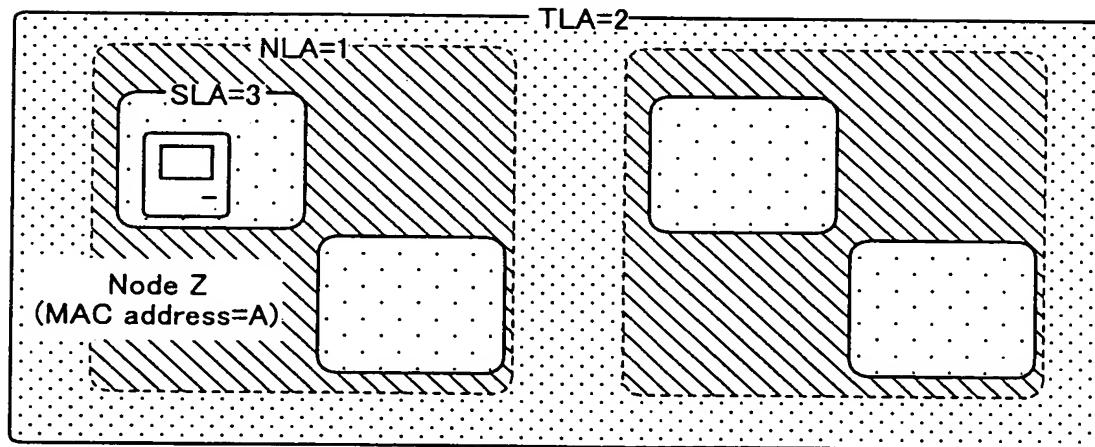


# FIG.5



001 Format Prefix (3 bit) for Aggregatable Global  
 Unicast Addresses  
 TLA ID Top-Level Aggregation Identifier  
 RES Reserved for future use  
 NLA ID Next-Level Aggregation Identifier  
 SLA ID Site-Level Aggregation Identifier  
 INTERFACE ID Interface Identifier

# FIG.6



IP ADDRESS OF NODE 2

FIG. 7

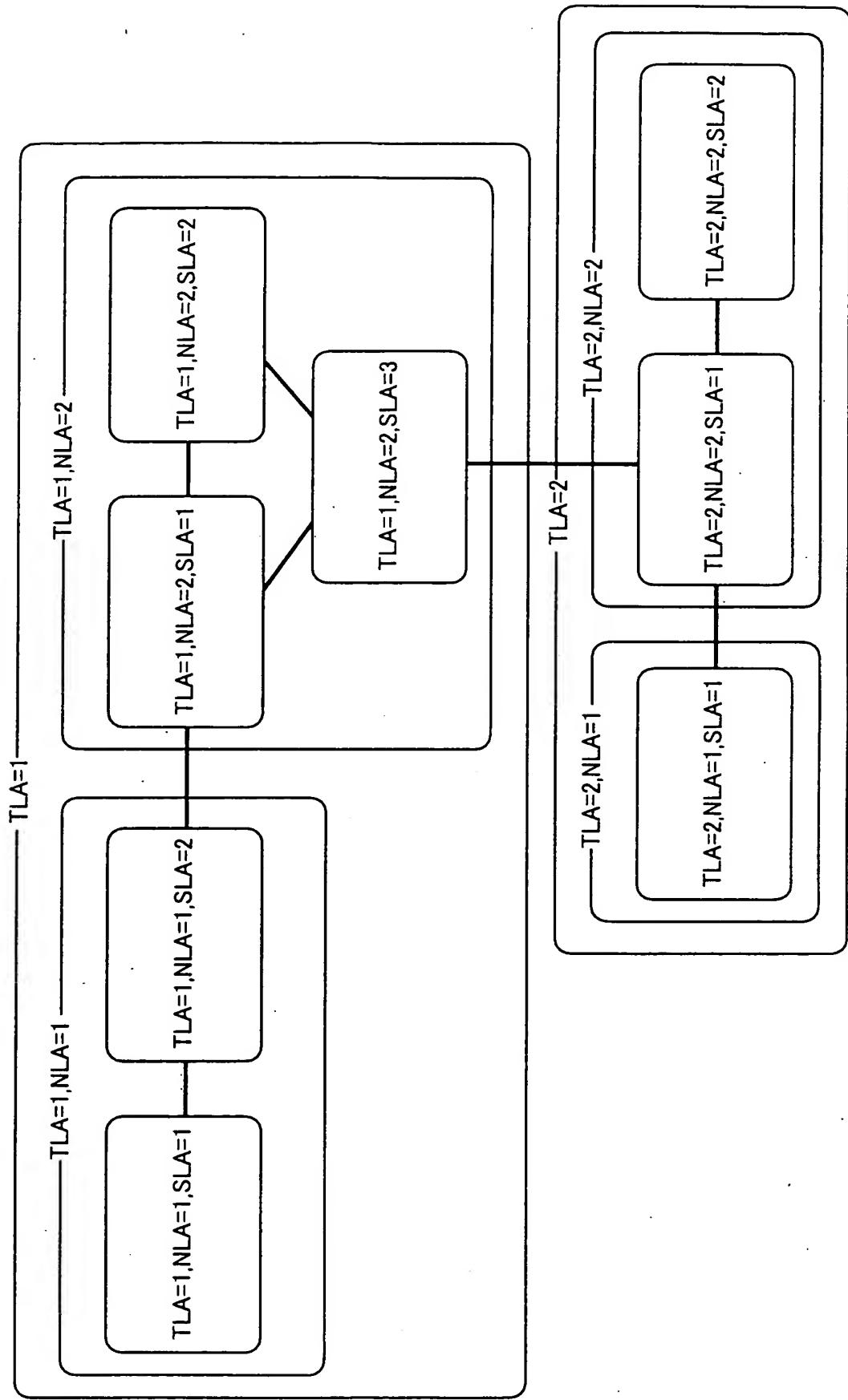
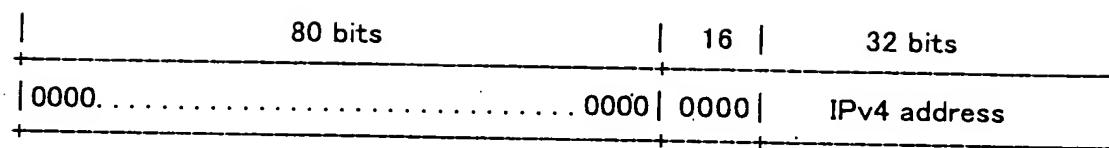
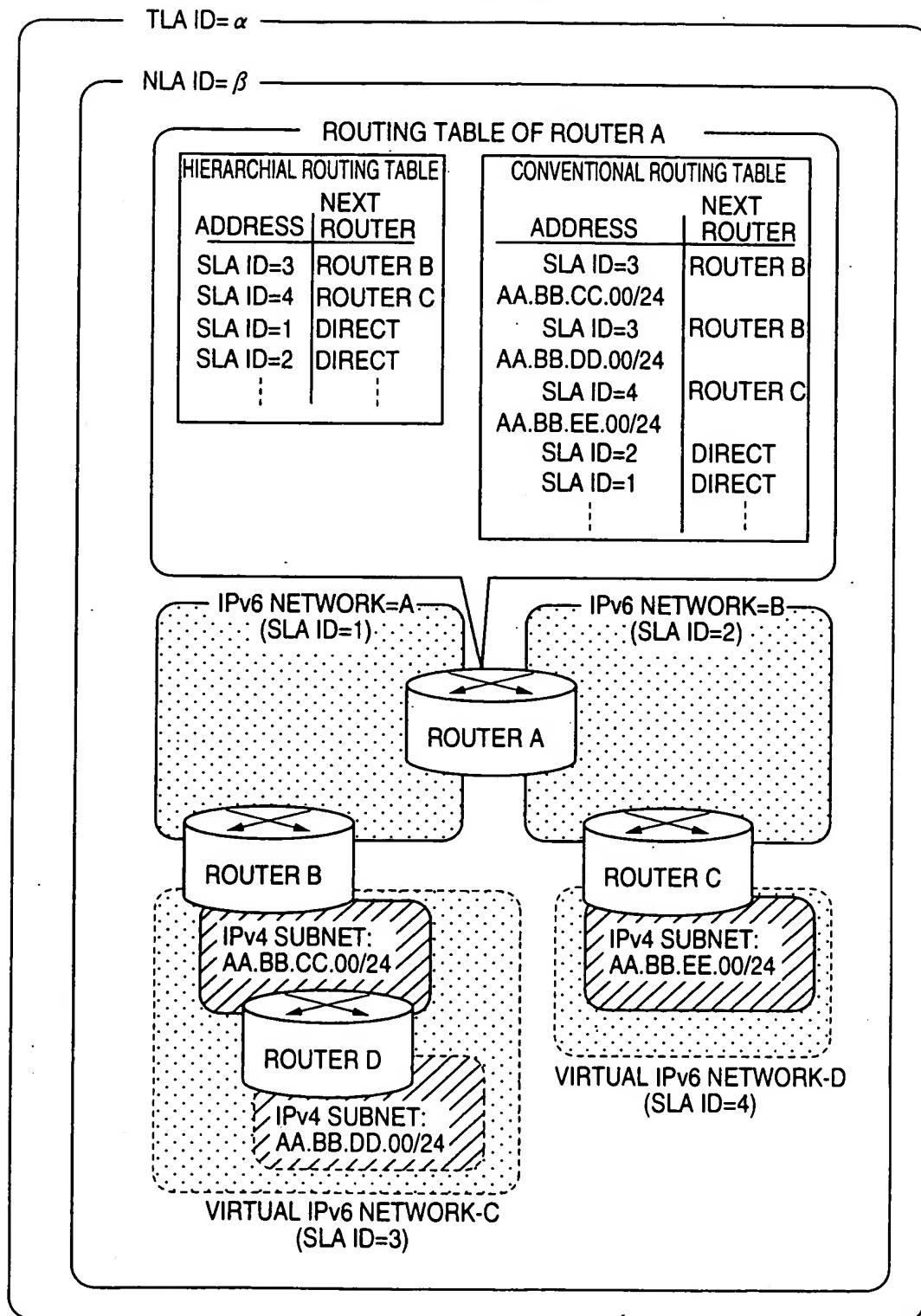


FIG.8



10025420 021302

# FIG.9



# FIG.10

						64 bits
3	13	8	24	16		
FP	TLA	RES	NLA	SLA		Interface ID
ID			ID	ID		All 0

IPv6 NETWORK ADDRESS

						64 bits
3	13	8	24	16		
FP	TLA	RES	NLA	SLA		Interface ID
ID			ID	ID		32bit=0, AA.BB.CC.0

IPv4 NETWORK ADDRESS

						64 bits
3	13	8	24	16		
FP	TLA	RES	NLA	SLA		Interface ID
ID			ID	ID		Layer2 address

IPv6 HOST ADDRESS

2024-02-20"00:00:00"

FIG. 11

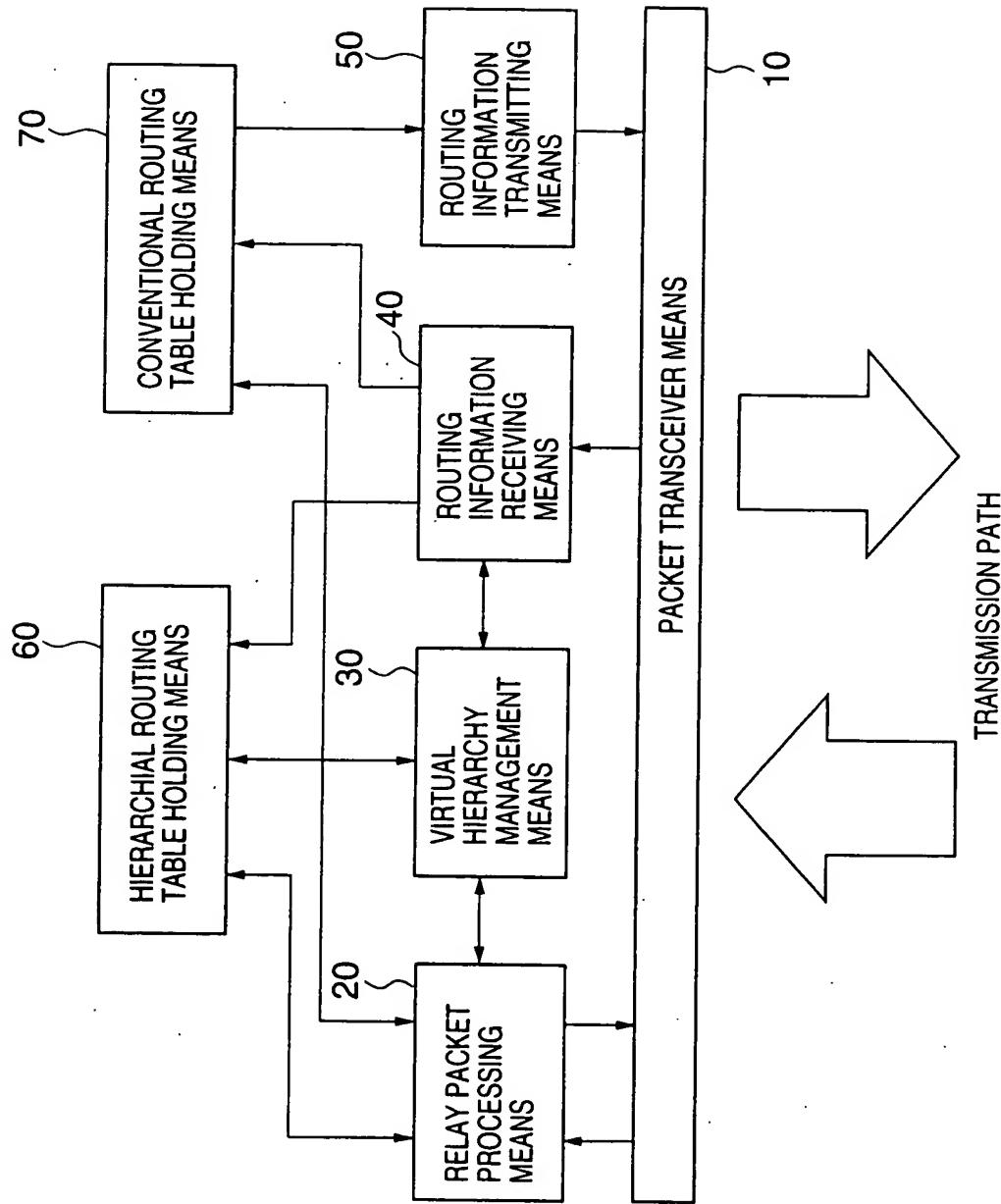


FIG.12

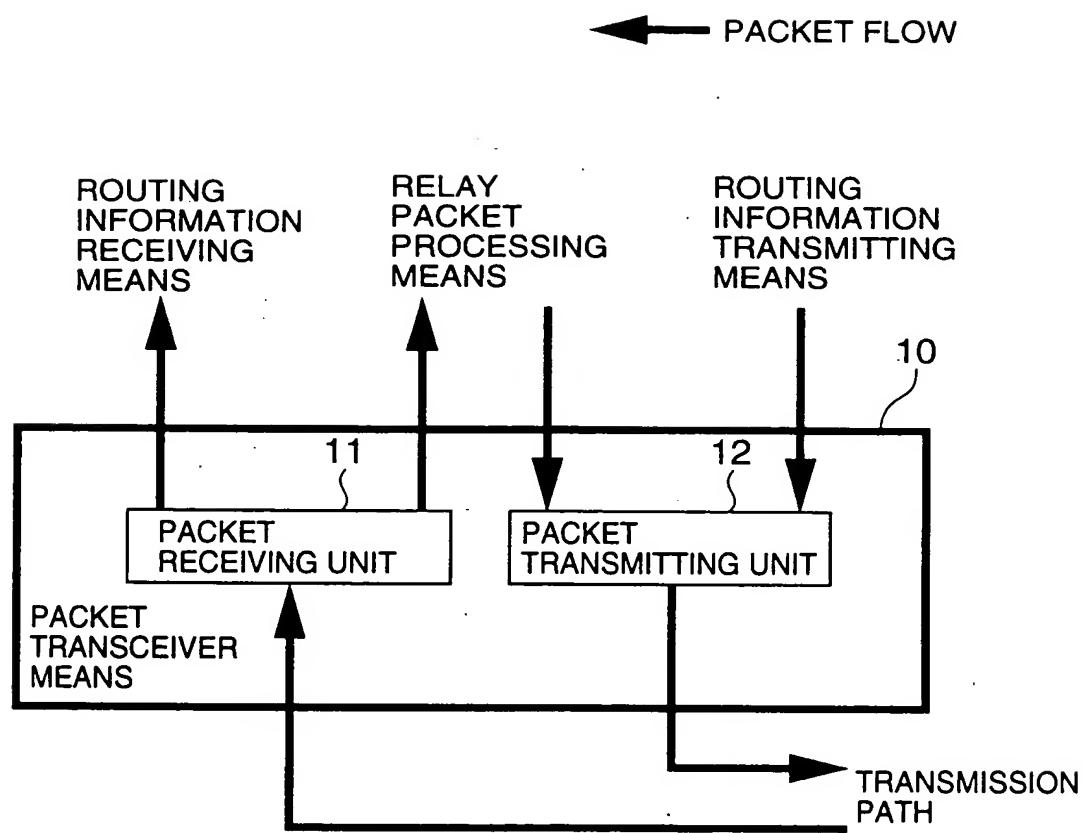
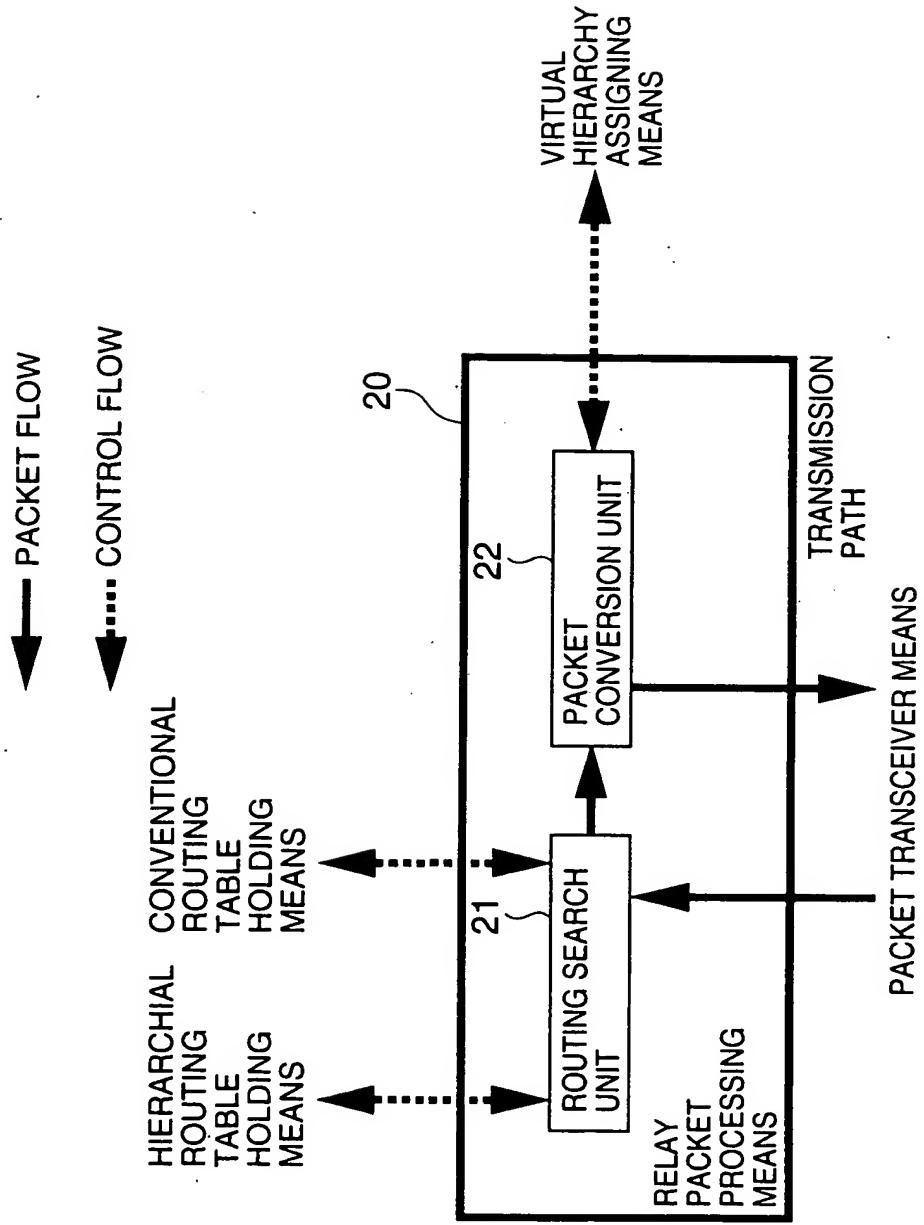
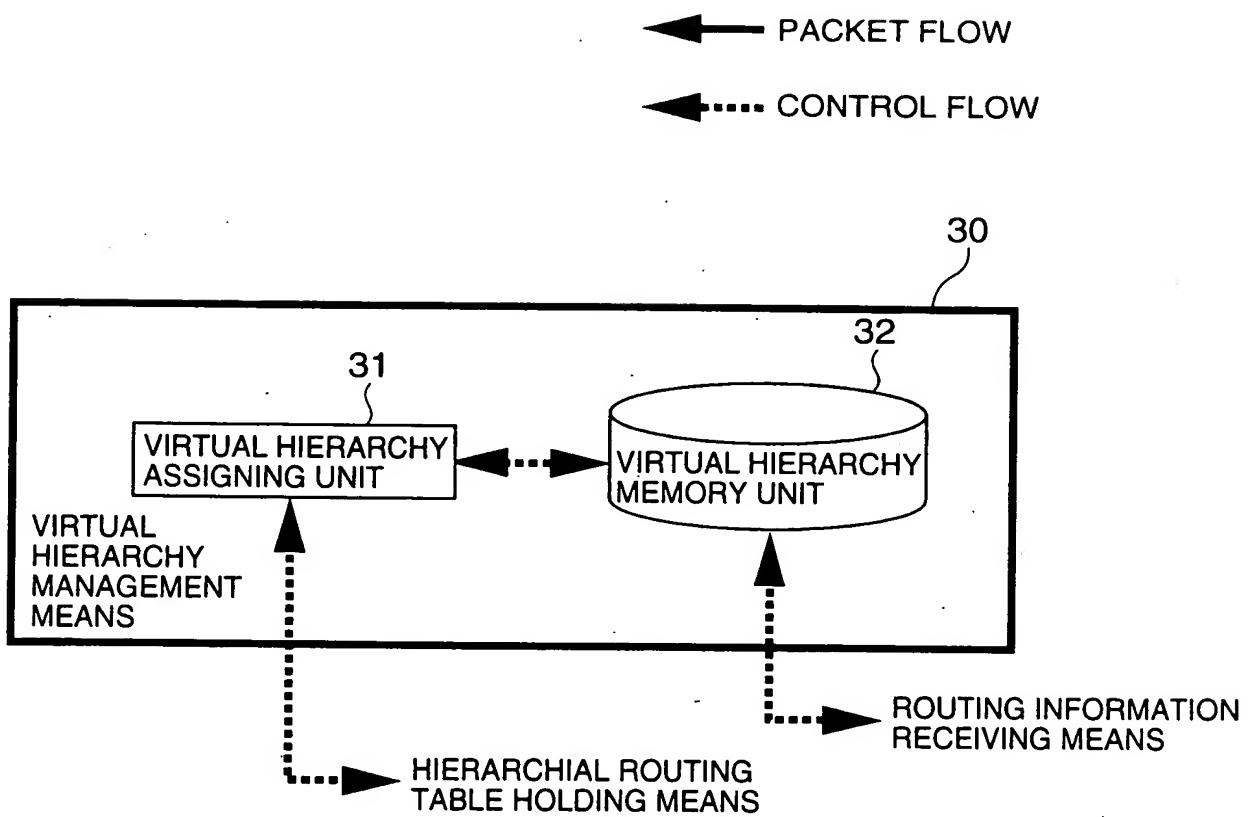


FIG. 13



**FIG.14**



4,002,543-024302

FIG. 15

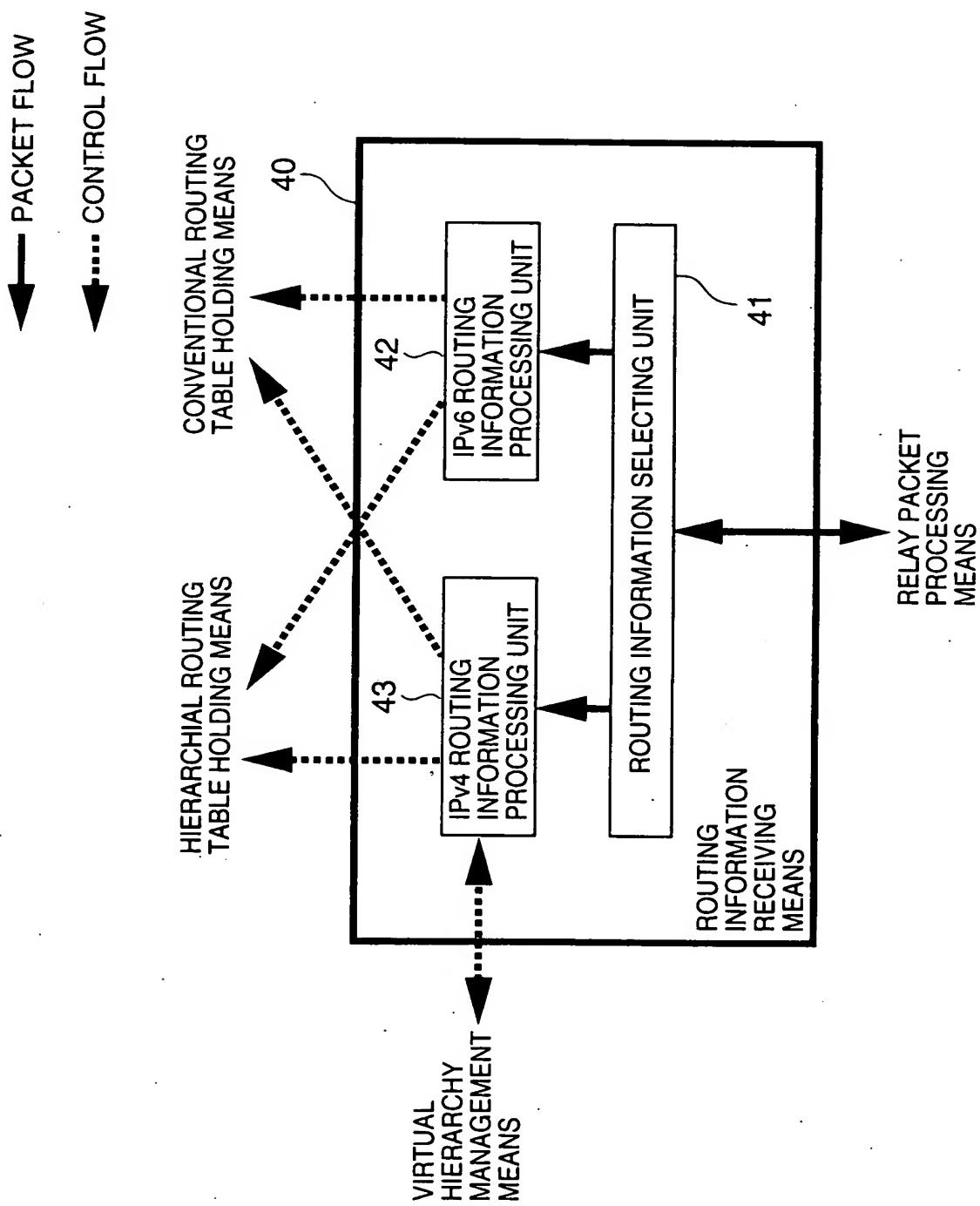


FIG.16

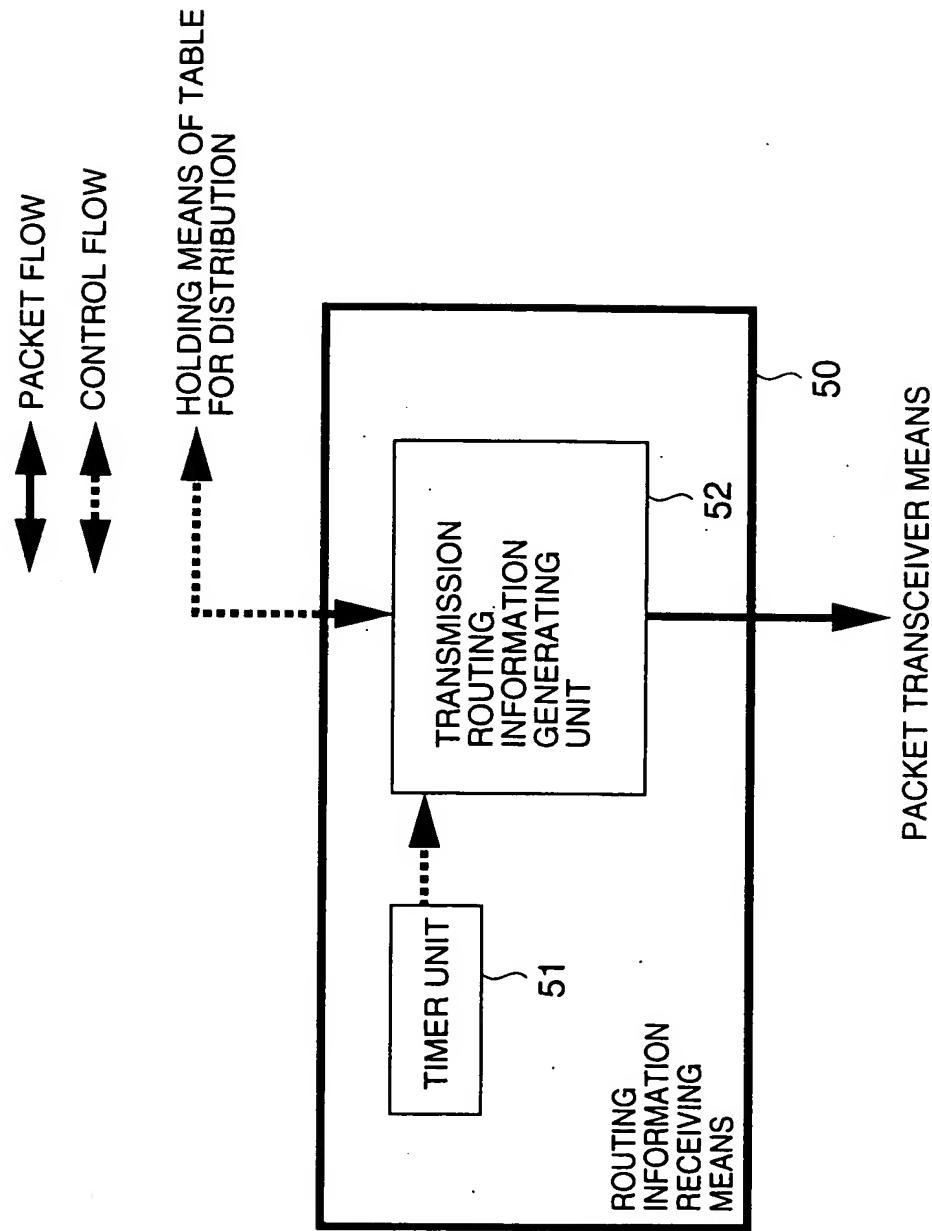


FIG.17

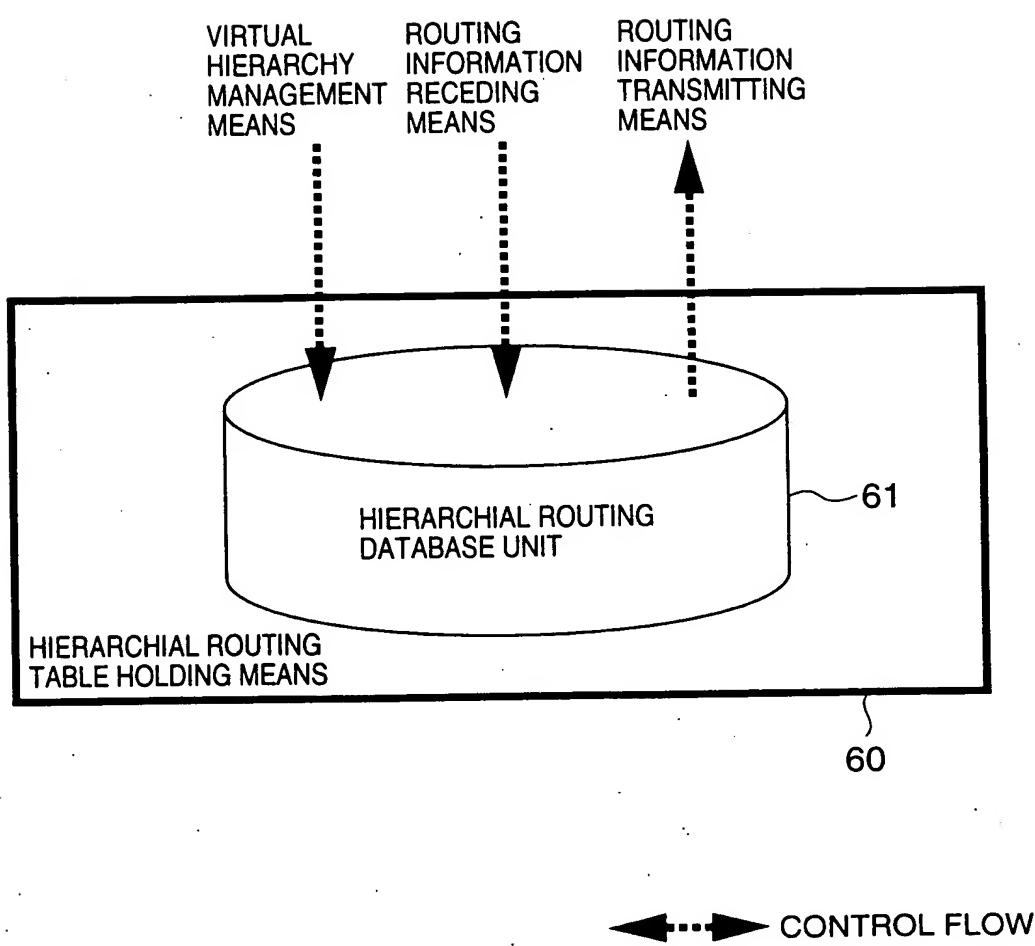
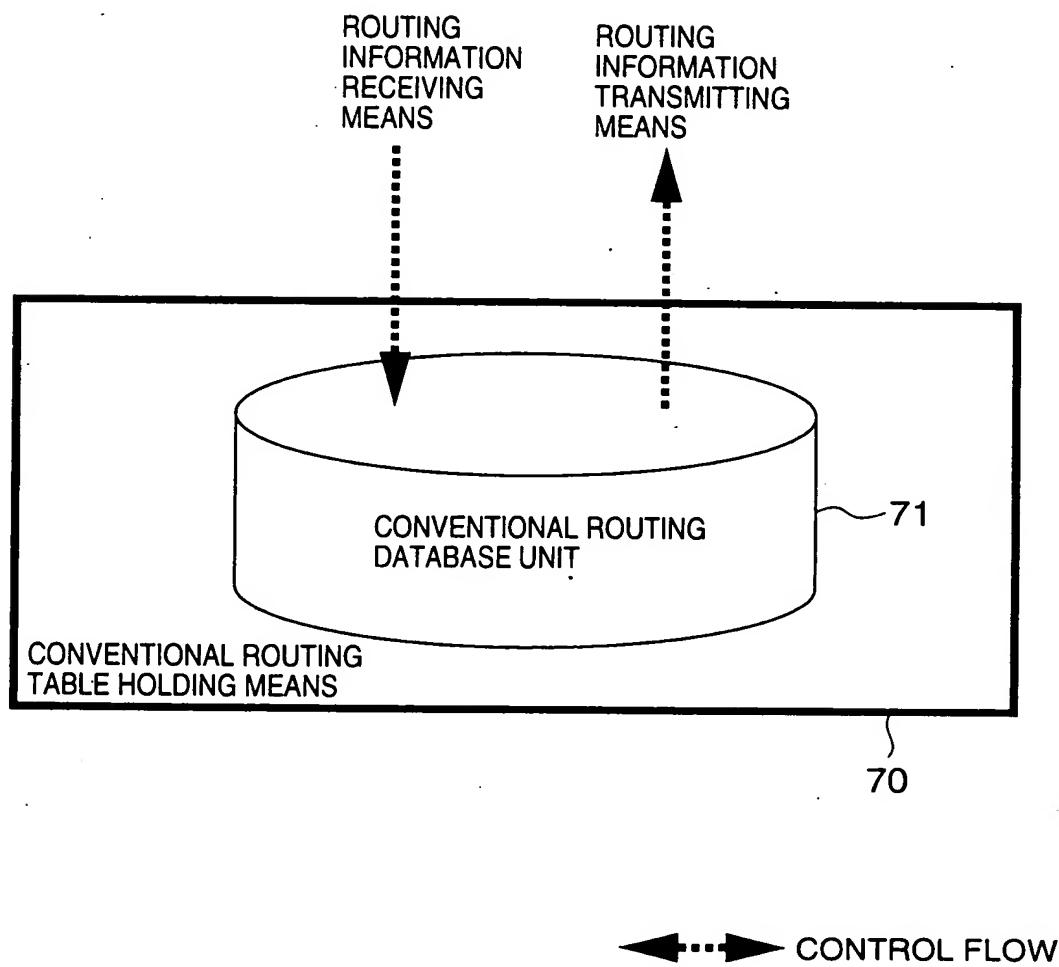
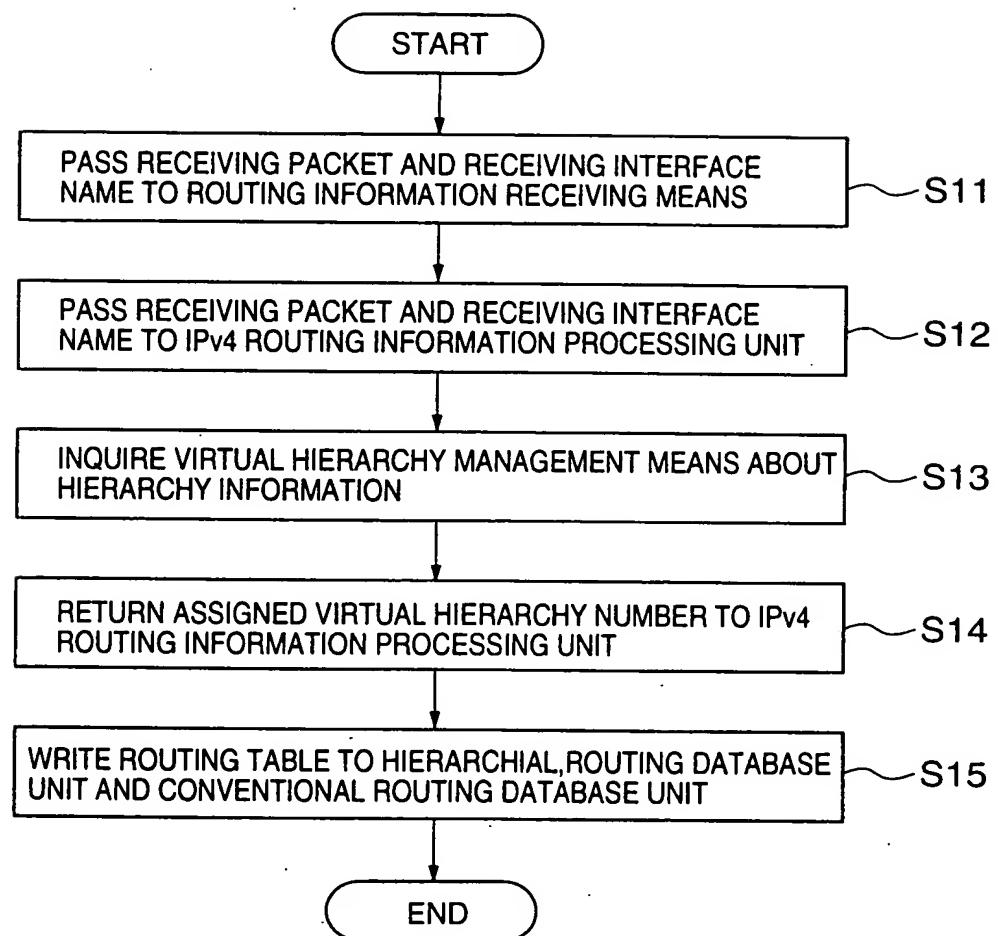


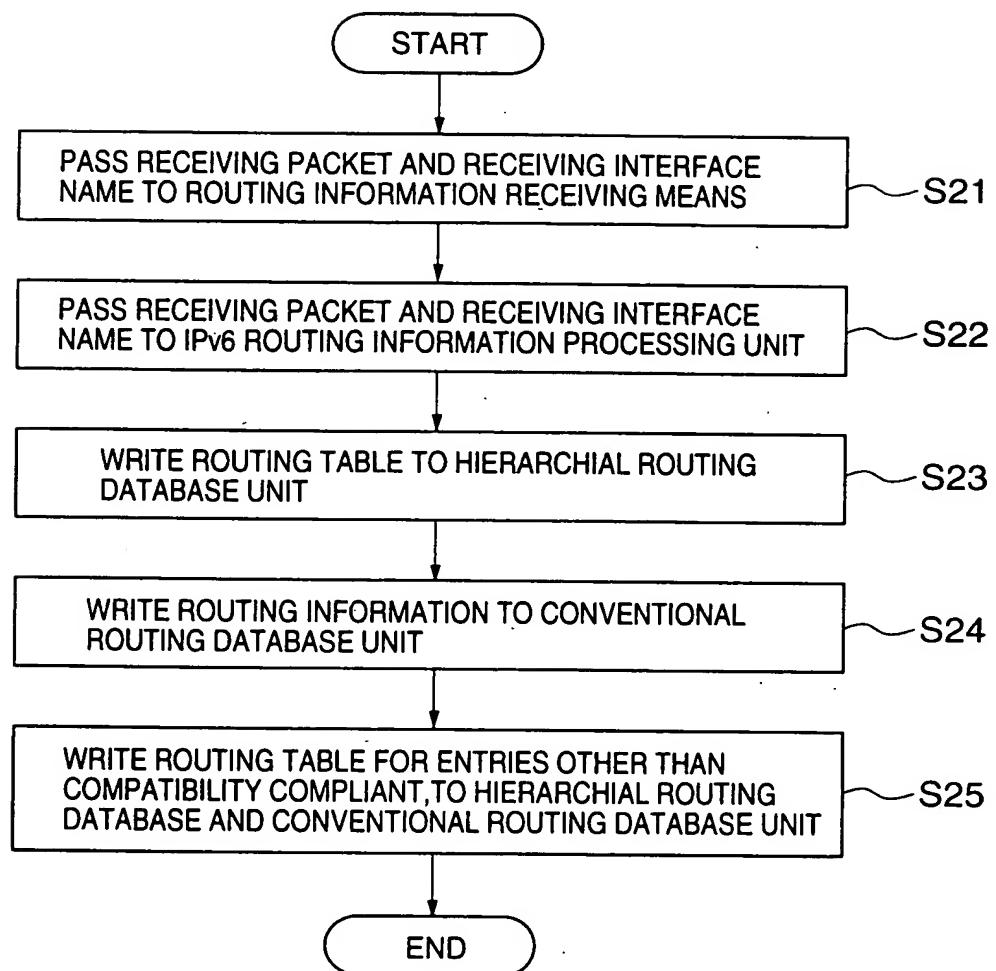
FIG.18



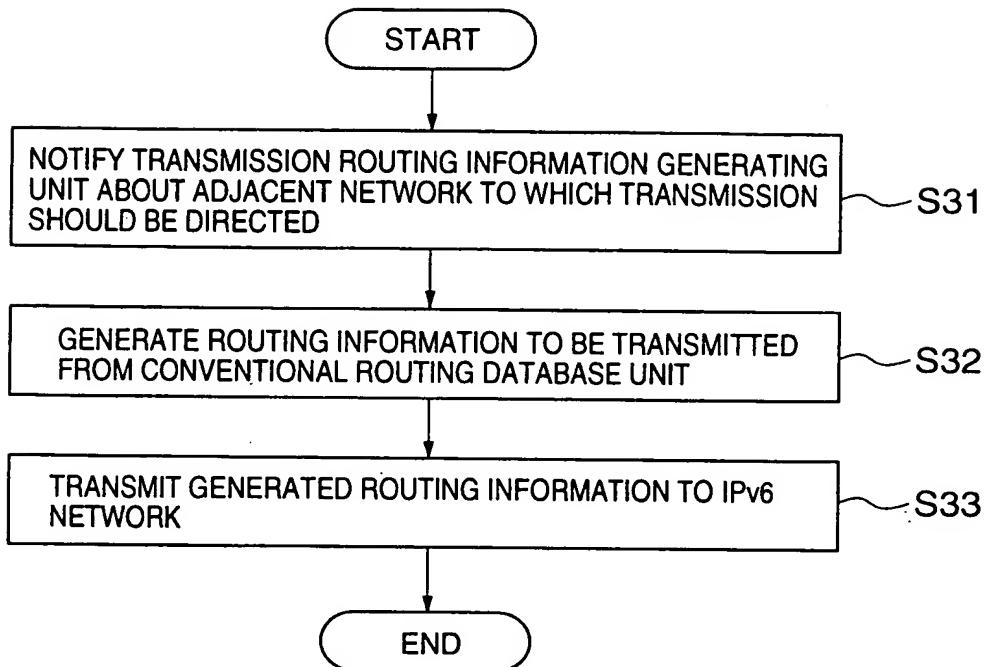
**FIG.19**



**FIG.20**



**FIG.21**



**FIG.22**

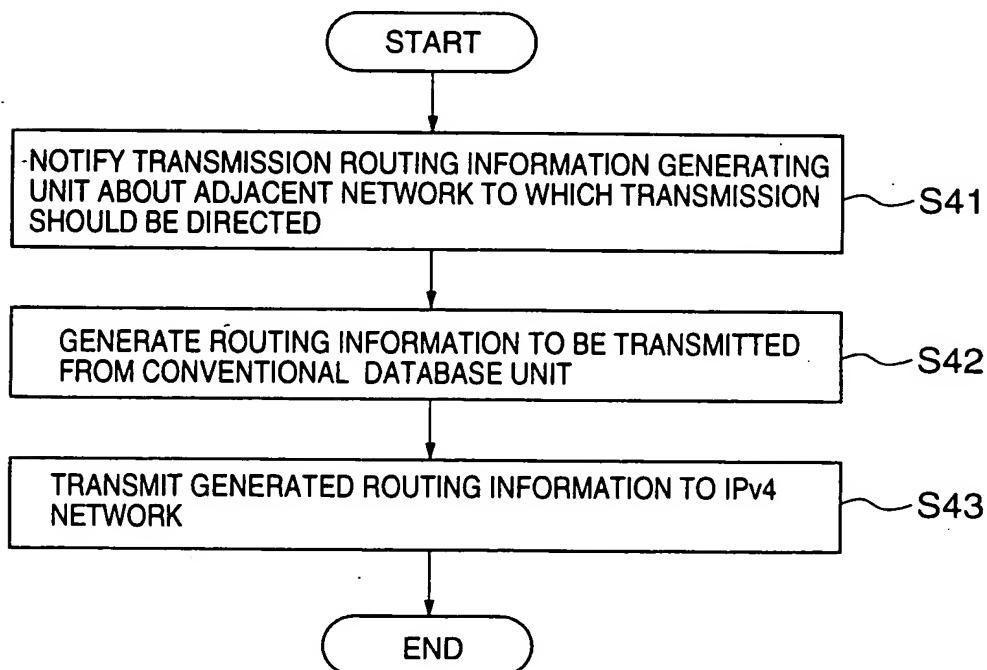
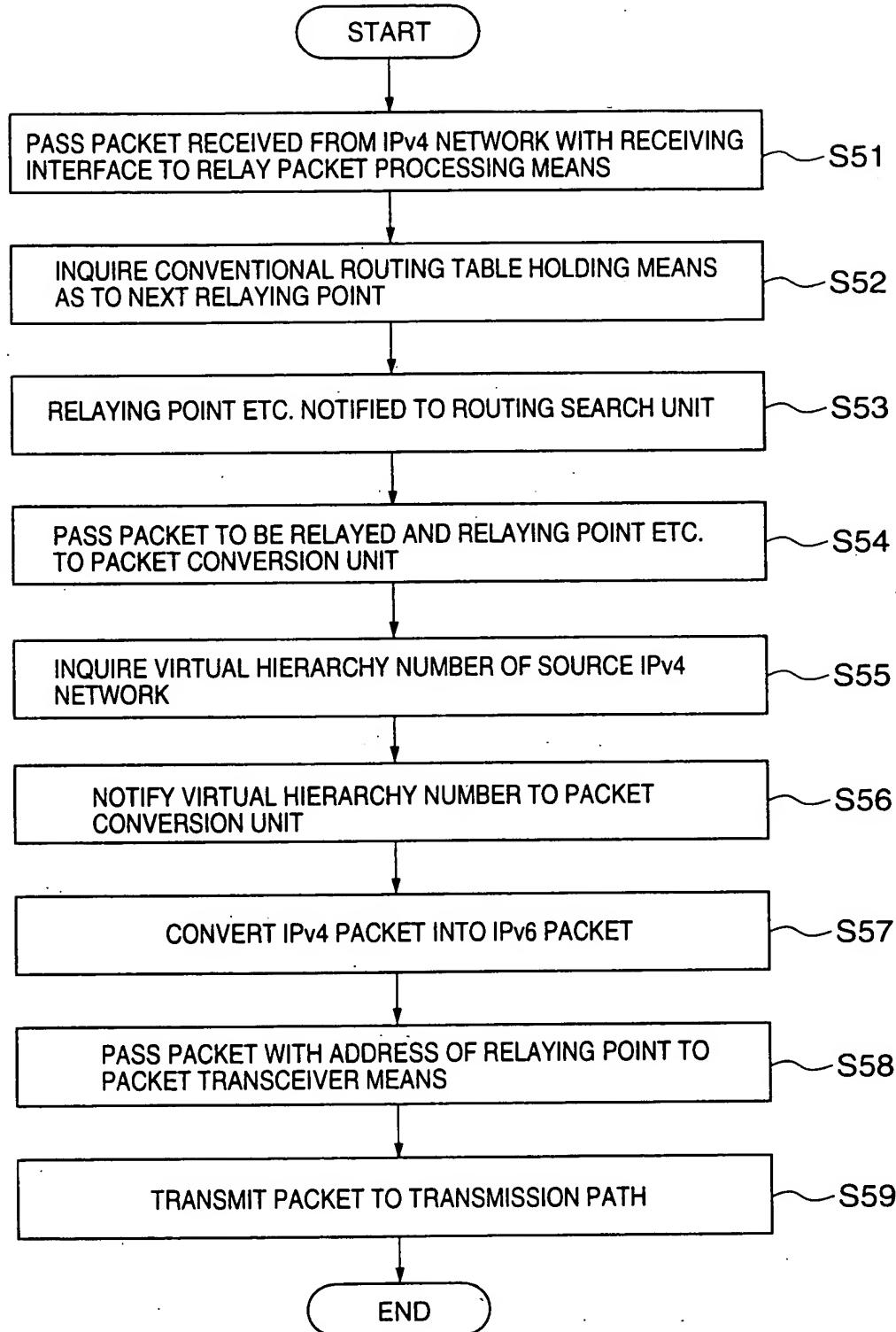
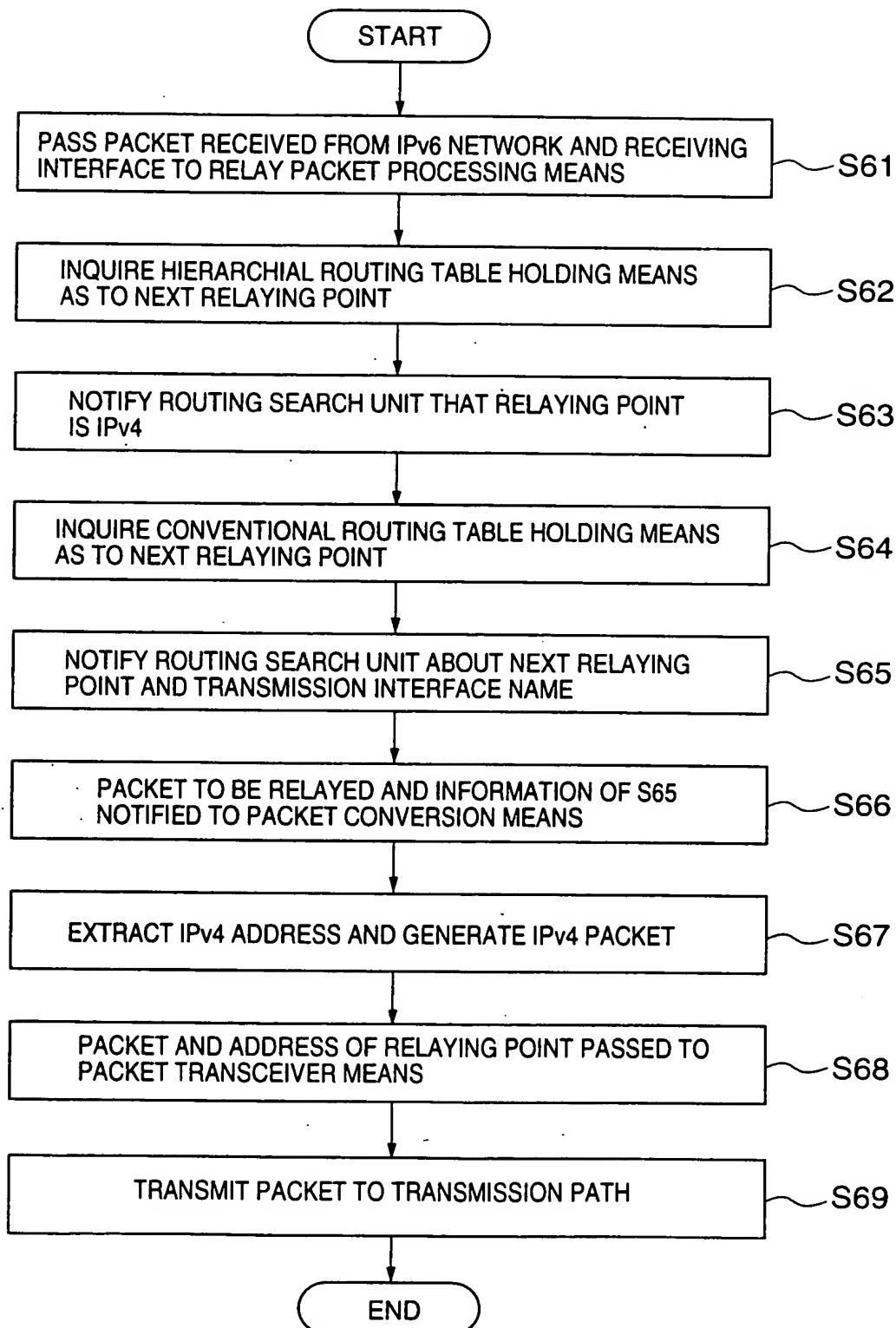


FIG.23



**FIG.24**



**FIG.25**

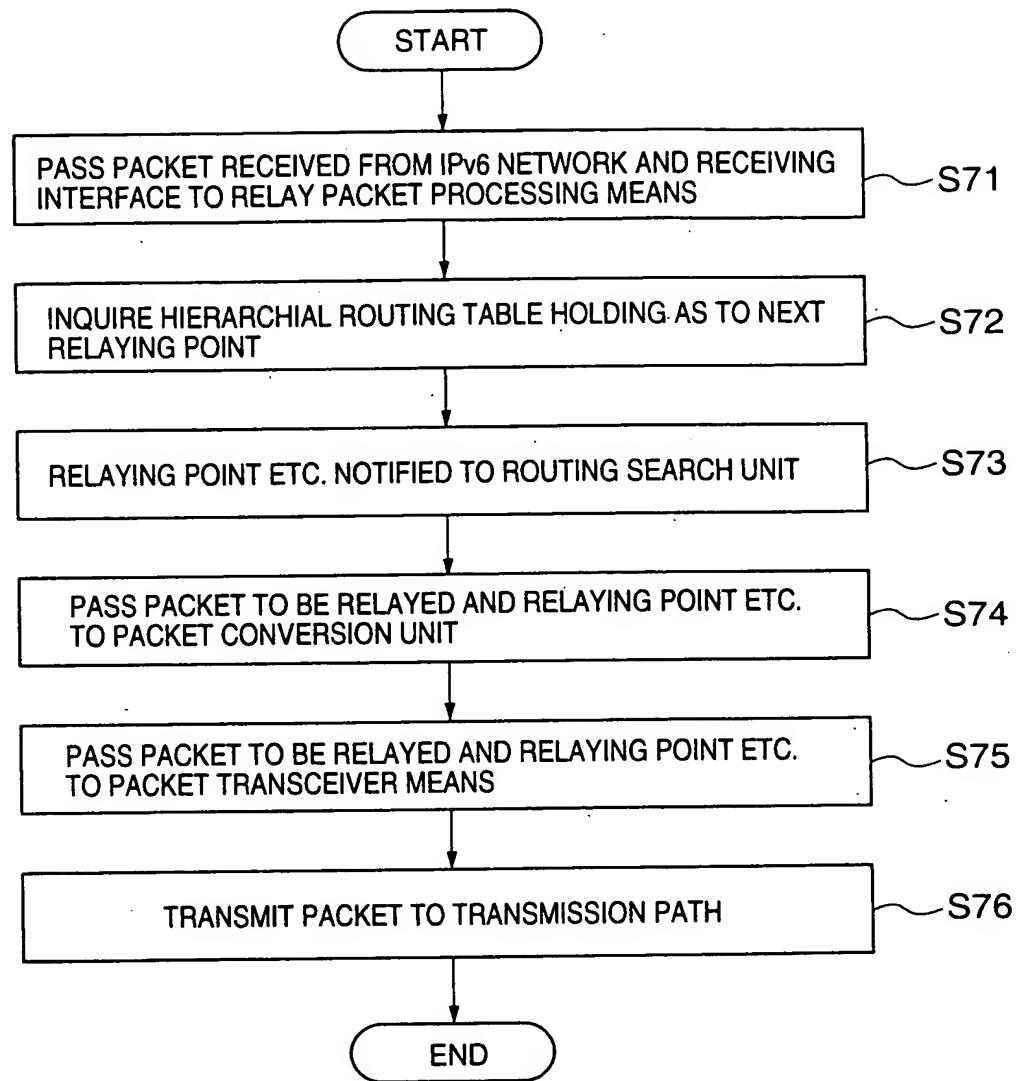
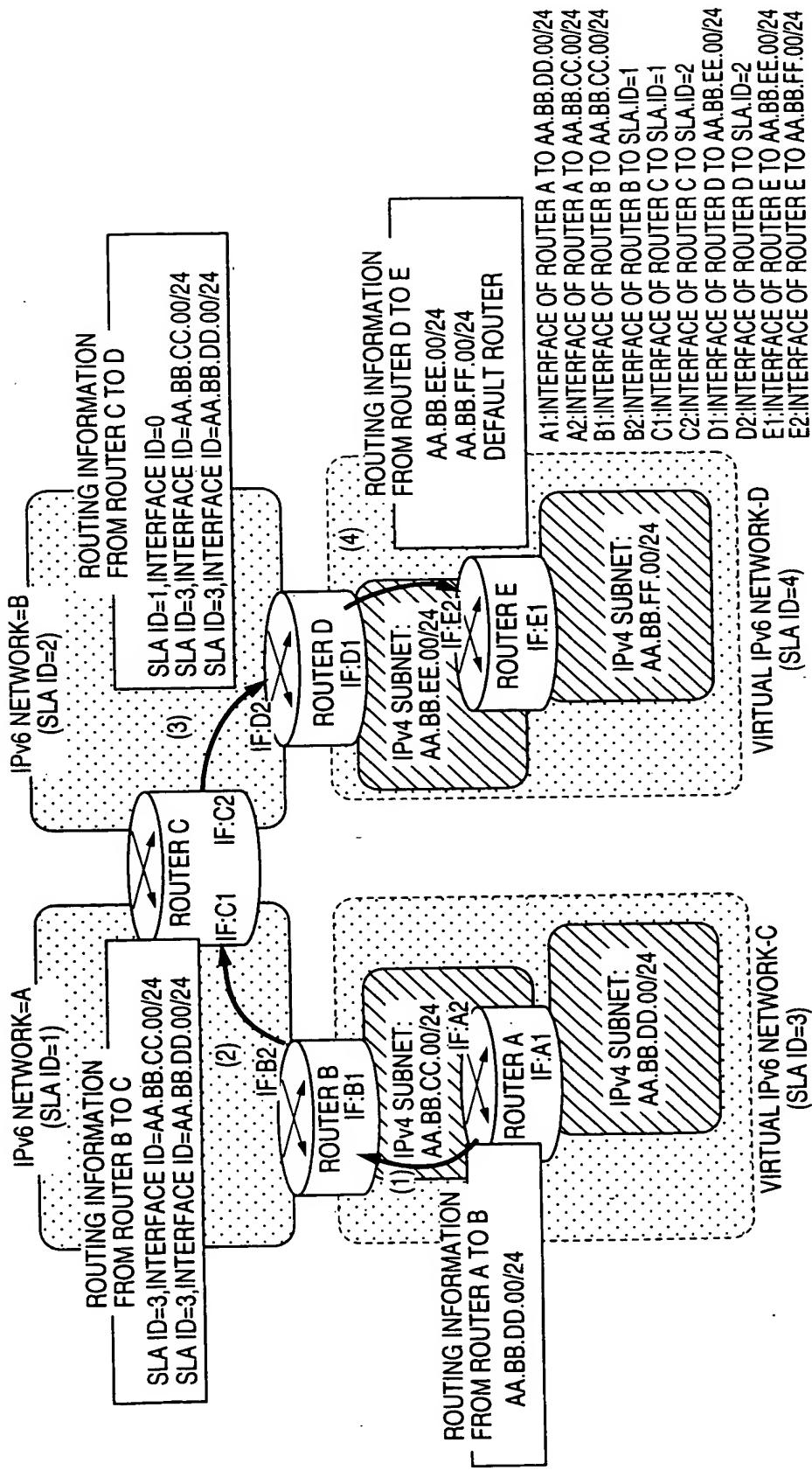


FIG.26



# FIG.27

ROUTING TABLE OF ROUTER B

HIERARCHIAL ROUTING TABLE		CONVENTIONAL ROUTING TABLE	
ADDRESS	NEXT ROUTER	ADDRESS	NEXT ROUTER
SLA ID=3	IPv4	SLA ID=3	DIRECT(B1)
SLA ID=1	DIRECT(B2)	AA.BB.CC.00/24	DIRECT A(B1)
TRANSMISSION INTERFACE NAME IN PARENTHESIS			
SLA ID=3	AA.BB.CC.00/24	SLA ID=1	DIRECT (B2)
SLA ID=3	AA.BB.DD.00/24		

# FIG.28

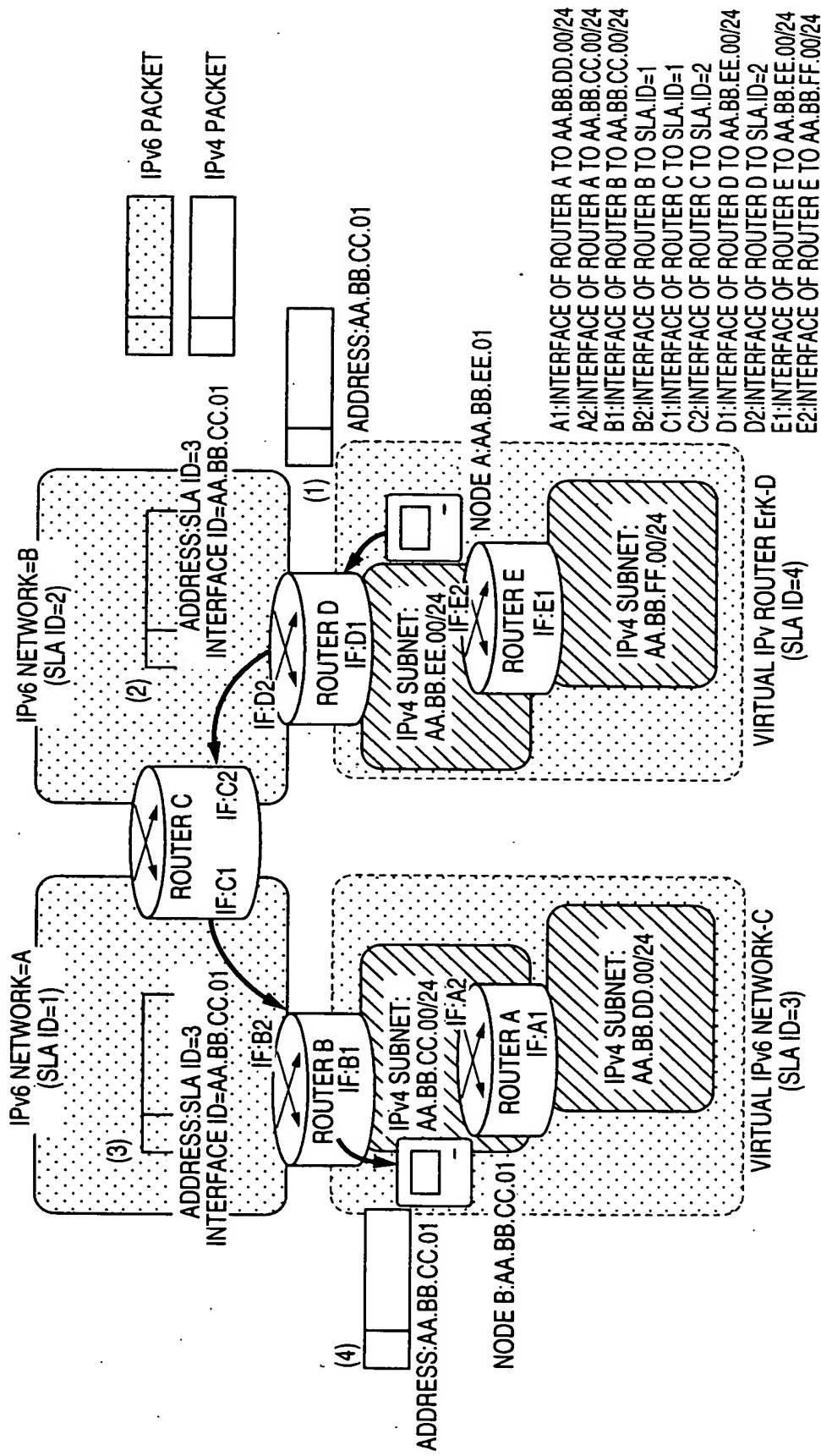
TABLE GENERATED BASED ON  
ROUTING INFORMATION FROM  
ROUTER C  ROUTER B

HIERARCHIAL ROUTING TABLE		CONVENTIONAL ROUTING TABLE	
ADDRESS	NEXT ROUTER	ADDRESS	NEXT ROUTER
SLA ID=3	ROUTER B(C1)	SLA ID=3	ROUTER B(C1)
SLA ID=1	DIRECT(C1)	AA.BB.CC.00/24	ROUTER B(C1)
SLA ID=2	DIRECT(C2)	SLA ID=3	ROUTER B(C1)
TRANSMISSION INTERFACE NAME IN PARENTHESIS			
AA.BB.DD.00/24		AA.BB.DD.00/24	
SLA ID=2		SLA ID=2	DIRECT A(C2)
SLA ID=1		SLA ID=1	DIRECT (C1)

# FIG.29

ROUTING TABLE OF ROUTER D		TABLE GENERATED BASED ON ROUTING INFORMATION FROM ROUTER C	
HIERARCHIAL ROUTING TABLE		CONVENTIONAL ROUTING TABLE	
ADDRESS	NEXT ROUTER	ADDRESS	NEXT ROUTER
SLA ID=3	ROUTER C(D2)	SLA ID=3	ROUTER C(D2)
SLA ID=1	DIRECT C(D2)	AA.BB.CC.00/24	
SLA ID=2	DIRECT(D2)	SLA ID=3	ROUTER C(D2)
SLA ID=4	IPv4(D1)	AA.BB.DD.00/24	
TRANSMISSION INTERFACE NAME IN PARENTHESIS		SLA ID=1	ROUTER C(D2)
		SLA ID=2	DIRECT(D2)
		SLA ID=4	DIRECT(D1)
		AA.BB.EE.00/24	

**FIG.30**



# FIG.31

ROUTING TABLE OF ROUTER D

MATCHED ENTRY IN  
ROUTING SEARCH

HIERARCHIAL ROUTING TABLE		CONVENTIONAL ROUTING TABLE	
ADDRESS	NEXT ROUTER	ADDRESS	NEXT ROUTER
SLA ID=3	ROUTER C(D2)	SLA ID=3	ROUTER C(D2)
SLA ID=1	ROUTER C(D2)	AA.BB.CC.00/24	
SLA ID=2	DIRECT(D2)	SLA ID=3	ROUTER C(D2)
SLA ID=4	IPv4(D1)	AA.BB.DD.00/24	ROUTER C(D2)
		SLA ID=1	DIRECT(D2)
		SLA ID=2	DIRECT(D2)
		SLA ID=4	DIRECT(D1)
		AA.BB.EE.00/24	

TRANSMISSION INTERFACE NAME IN PARENTHESIS

# FIG.32

ROUTING TABLE OF ROUTER C

HIERARCHIAL ROUTING TABLE		CONVENTIONAL ROUTING TABLE	
ADDRESS	NEXT ROUTER	ADDRESS	NEXT ROUTER
SLA ID=3	ROUTER B(C1)	SLA ID=3	ROUTER B(C1)
SLA ID=1	DIRECT(C1)	AA.BB.CC.00/24	
SLA ID=2	DIRECT(C2)	SLA ID=3	ROUTER B(C1)
		AA.BB.DD.00/24	
		SLA ID=2	DIRECT(C2)
		SLA ID=1	DIRECT(C1)

TRANSMISSION INTERFACE NAME IN PARENTHESIS

100-25430 - 0001302

# FIG.33

## ROUTING TABLE OF ROUTER B

HIERARCHIAL ROUTING TABLE		CONVENTIONAL ROUTING TABLE	
ADDRESS	NEXT ROUTER	ADDRESS	NEXT ROUTER
SLA ID=3	IPv4	SLA ID=3	DIRECT(B1)
SLA ID=1	DIRECT(B2)	AA.BB.CC.00/24	ROUTER A(B1)
TRANSMISSION INTERFACE NAME IN PARENTHESIS			
AA.BB.DD.00/24		SLA ID=1	DIRECT(B2)

100075430 "00012000"